IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A device for use with a voice gateway coupled in a network adapted to transmit network packets that meet a minimum packet switched network protocol, comprising:

> a Wide Band (WB) telephone adapted to convert sound into sound signals that capture a wideband bandwidth of the sound;

> an encoder coupled to receive the sound signals and to encode them as voice data bits;

> a packetizer for packetizing groups of the voice data bits into intermediate packets without sufficient header information for transport over a ~~which do not meet the minimum~~ packet switched network protocol; and

> a modem adapted to establish a first circuit switched connection with the voice gateway, and coupled to transmit the intermediate packets through the first connection.

2. (Original) The device of claim 1, further comprising:

> a decoder coupled to receive other voice data bits through the connection and the modem.

3. (Previously presented) The device of claim 1, wherein the modem is a Digital Simultaneous Voice and Data (DSVD) modem.

4. (Previously presented) The device of claim 1, wherein

> the wideband bandwidth of the sound is within a range of 200 Hertz (Hz) to 5 Hz.

5. (Previously presented) The device of claim 1, wherein

> the sound signals are encoded to capture the wideband signal range and the first circuit switched connection only supports a bandwidth lower than the wideband bandwidth.

6. (Original) The device of claim 1, wherein

> the encoder encodes at a rate of at least 16 kbps.

7. (Currently amended) A device comprising:

    means for establishing a first circuit switched telephone connection with a first device at a first endpoint of a network capable of transmitting network data packets which meet a minimum packet switched network protocol;

    means for converting sound into sound signals;

    means for encoding the sound signals into voice data bits;

    means for packetizing groups of the voice data bits into intermediate packets which do not meet the minimum packet switched network protocol for transport over a packet switched network; and

    means for transmitting the intermediate packets through the first circuit switched telephone connection.

8. (Original) The device of claim 7, further comprising:

    means for multiplexing additional data with the voice data bits prior to transmitting.

9. (Original) The device of claim 7, further comprising:

    means for receiving through the first connection return intermediate packets;

    means for depacketizing the return intermediate packets to derive return voice data bits;

    means for decoding the return voice data bits to produce return sound signals; and

    means for producing a return sound from the return sound signals.

10. (Previously presented) The device of claim 7, wherein

    the sound signals are encoded into voice signals at a wideband encoding rate and transmitted over the first circuit switched telephone connection at a rate that is less than the wideband encoding rate.

11. (Currently amended) A gateway comprising:

a network interface for coupling to a network;

a processor coupled with the network interface, wherein the processor is adapted to establish a first circuit switched telephone connection with a modem;

establish a second packet switched network connection through a network with a device at an endpoint of the network;

receive through the first connection a stream of intermediate packet switched network packets that ~~and~~ do not include headers necessary for transport over the packet switched network and include voice data bits which represent sound that has been encoded;

add packet headers to the intermediate packets to form network packets; and

transmit the network packets through the second connection.

12. (Original) The gateway of claim 11, wherein the processor is further adapted to

receive first dialing information,

wherein the first dialing information is used to establish the second connection.

13. (Original) The gateway of claim 11, wherein

the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

14. (Previously presented) The gateway of claim 11, wherein

the voice data bits have been encoded at a high bandwidth rate and the first circuit switched telephone connection only supports a lower bandwidth rate.

15. (Previously presented) The gateway of claim 11, wherein

the stream includes non-voice data bits,

and the processor is further adapted to:

demultiplex the voice data bits from the non-voice data bits in the stream prior to adding the headers.

16. (Currently amended) An adapter for an analog wideband telephone to communicate with a voice gateway coupled in a network adapted to transmit network packets that meet a minimum packet switched network <u>transport</u> protocol, the adapter comprising:

    an analog to digital converter for digitizing voice signals received from the analog wideband telephone;

    an encoder coupled to receive the digitized voice signals and to encode them as voice data bits;

    a packetizer for packetizing groups of the voice data bits into intermediate packets which do not meet the minimum packet switched <u>transport</u> network protocol; and

    a modem adapted to establish a first circuit switched connection with the voice gateway, and adapted to be coupled to transmit the intermediate packets through the first connection.

17. (Original) The adapter of claim 16, further comprising:

    a depacketizer for depacketizing return intermediate packets which do not meet the minimum protocol to produce return voice data bits;

    a decoder for decoding the return voice data bits to produce a digital return voice signal; and

    a digital to analog converter for converting the digital return voice signal into an analog signal for the analog wideband telephone.

18. (Previously presented) A gateway comprising:

    a network interface for coupling to a network; and

    a processor coupled with the network interface, wherein the processor is adapted to

    establish a first packet switched network connection through a network with a device at an endpoint of the network;

    establish a second circuit switched telephone connection with a modem;

    receive through the first connection a stream of network packets that transport voice data bits that represent sound which has been encoded;

    strip packet headers from the network packets to yield intermediate packets that do not conform with a minimum packet switched network protocol; and

    transmit the yielded intermediate packets through the second connection.

19. (Original) The gateway of claim 18, wherein the processor is further adapted to:

  receive second dialing information,

  wherein the second dialing information is used to establish the second connection.

20. (Original) The gateway of claim 18, wherein

  the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

21. (Original) The gateway of claim 18, wherein

  the first connection supports a data transmission at a rate not exceeding 28.8 kbps.

22. (Original) A device comprising:

  means for establishing a first packet switched network connection through a network with a device at an endpoint of the network;

  means for establishing a second circuit switched telephone connection with a modem;

  means for receiving through the first connection a stream of network packets that transport voice data bits that represent sound which has been encoded at a rate of at least 16 kbps;

  means for stripping packet headers from the network packets to yield intermediate packets; and

  means for transmitting the yielded intermediate packets through the second connection.

23. (Original) The device of claim 22, further comprising:

  means for receiving second dialing information,

  wherein the second dialing information is used by the means for establishing the second connection.

24. (Original) The device of claim 22, wherein

  the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

25. (Original) The device of claim 22, wherein

  the first connection supports a data transmission at a rate not exceeding 28.8 kbps.

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26. (Original) A device comprising:

means for establishing a circuit switched connection with a voice gateway coupled in a network which is adapted to transmit network packets that meet a minimum protocol;

means for receiving voice signals from an analog wideband telephone, the voice signals encoding sound in a range of at least 200 Hz to 5 kHz;

means for digitizing the received voice signals;

means for encoding the digitized voice signals as voice data bits at a rate of at least 16 kbps;

means for packetizing groups of the voice data bits into intermediate packets which do not meet the minimum protocol; and

means for transmitting the intermediate packets through the circuit switched connection.

27. (Original) The device of claim 26, further comprising:

means for depacketizing return intermediate packets which do not meet the minimum protocol to produce return voice data bits;

means for decoding the return voice data bits to produce a digital return voice signal; and

means for converting the digital return voice signal into an analog signal.

28. (Previously presented) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:

establishing a first circuit switched telephone connection with a modem;

establishing a second packet switched network connection through a network with a device at an endpoint of the network;

receiving through the first connection a stream of intermediate packets that include voice data bits which represent sound that has been encoded and do not conform to a minimum packet switched network protocol;

adding packet headers to the intermediate packets to form network packets that conform with the packet switched network protocol; and

transmitting the network packets through the second connection.

29. (Original) The article of claim 28, wherein executing the instructions further results in:

    receiving first dialing information,

    wherein the first dialing information is used to establish the second connection.

30. (Original) The article of claim 29, wherein

    the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

31. (Original) The article of claim 30, wherein

    the first connection supports a data transmission at a rate not exceeding 28.8 kbps.

32. (Previously presented) The article of claim 28, wherein

    the stream includes non-voice data bits,

    and the instructions further result in:

    demultiplexing the voice data bits from the non-voice data bits in the stream prior to adding the headers.

33. (Previously presented) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:

    establishing a first packet switched network connection through a network with a device at an endpoint of the network;

    establishing a second circuit switched telephone connection with a modem;

    receiving through the first connection a stream of network packets that transport voice data bits that represent sound which has been encoded and do not conform to a minimum packet switched network protocol;

    stripping packet headers from the network packets to yield intermediate packets that conform with the packet switched network protocol; and

    transmitting the yielded intermediate packets through the second connection.

34. (Previously presented) The article of claim 33, wherein executing the instructions further results in:

    receiving second dialing information,

    wherein the second dialing information is used to establish the second connection.

35. (Previously presented) The article of claim 33, wherein
the packet headers include at least one of PPP type headers, IP type headers, UDP type headers and RTP type headers.

36. (Previously presented) A method comprising:
establishing a first circuit switched telephone connection with a first device at a first endpoint of a network capable of transmitting data packets which meet a minimum protocol;
converting sound into sound signals;
encoding the sound signals into voice data bits at a rate of at least 16 kbps;
packetizing groups of the voice data bits into intermediate packets which do not meet the minimum protocol; and
transmitting the intermediate packets through the first connection.

37. (Previously presented) The method of claim 36, wherein
the first connection supports a data transmission at a rate not exceeding 28.8 kbps.

38. (Previously presented) The method of claim 36, further comprising:
multiplexing additional data with the voice data bits prior to transmitting.

39. (Previously presented) The method of claim 36, wherein
the bandwidth includes a range of 150 Hz to 7.1 kHz.

40. (Currently amended) ~~The~~ A method ~~of claim 36, further~~ comprising:
established a first circuit switched telephone connection with a first device at a first endpoint of a network capable of transmitting data packets which meet a minimum protocol;
converting sound into sound signals;
encoding the sound signals into voice data bits at a rate of at least 6 kbps;
packetizing grounds of the voice data bits into intermediate packets which do not meet the minimum protocol;
transmitting the intermediate packets through the first connection;
receiving through the first connection return intermediate packets;
depacketizing the return intermediate packets to derive return voice data bits;
decoding the return voice data bits to produce return sound signals; and

inputting the return sound signals into a speaker to produce a return sound in a second bandwidth that includes a range of 1 kHz to 5 kHz.

41. (Previously presented) A method comprising:

establishing a first circuit switched telephone connection with a modem;

establishing a second packet switched network connection through a network with a device at an endpoint of the network;

receiving through the first connection a stream of intermediate packets that include voice data bits which represent sound that has been encoded at a rate of at least 16 kbps and do not conform with the packet formatting required for sending packets over the second packet switched network;

adding packet headers to the intermediate packets to form network packets that conform with the packet formatting required for sending packets over the second packet switched network; and

transmitting the network packets through the second connection.

42. (Previously presented) The method of claim 41, further comprising:

receiving first dialing information,

wherein the first dialing information is used to establish the second connection.

43. (Previously presented) The method of claim 41, wherein

the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

44. (Previously presented) The method of claim 41, wherein

the first connection supports a data transmission at a rate not exceeding 28.8 kbps.

45. (Previously presented) The method of claim 41, wherein

the stream includes non-voice data bits.

and further comprising:

demultiplexing the voice data bits from the non-voice data bits in the stream prior to adding the headers.

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46. (Previously presented) A method comprising:

establishing a first packet switched network connection through a network with a device at an endpoint of the network;

establishing a second circuit switched telephone connection with a modem that does not support transmission at a wideband sound rate;

receiving through the first connection a stream of packets that transport voice data bits that represent sound encoded at a wideband sound rate which includes packet headers required for transporting the packets across the packet switched network;

stripping the packet headers from the network packets to yield intermediate packets that no longer include the headers necessary for transporting the packets over the packet switched network; and

transmitting the intermediate packets through the second connection.

47. (Previously presented) The method of claim 46, further comprising:

receiving second dialing information regarding the modem,

wherein the second dialing information is used to establish the second connection.

48. (Previously presented) The method of claim 46, wherein

the packet headers include at least one of IP type headers, UDP type headers and RTP type headers.

49. (Previously presented) The method of claim 46, wherein

the second connection supports a data transmission at a rate not exceeding 28.8 kbps.

50. (Previously presented) A method comprising:

establishing a circuit switched connection with a voice gateway coupled in a network which is adapted to transmit network packets that meet a minimum protocol;

receiving voice signals from an analog wideband telephone, the voice signals encoding sound in a range of at least 200 Hz to 5 kHz;

digitizing the received voice signals;

encoding the digitized voice signals as voice data bits at a rate of at least 16 kbps;

packetizing groups of the voice data bits into intermediate packets which do not meet the minimum protocol; and

transmitting the intermediate packets through the circuit switched connection.

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51. (Previously presented) The method of claim 50, further comprising:

depacketizing return intermediate packets which do not meet the minimum protocol to produce return voice data bits;

decoding the return voice data bits to produce a digital return voice signal; and

converting the digital return voice signal into an analog signal.

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